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THE GENUS *ACRIDOMYIA* STACKELBERG IN NORTH AMERICA (DIPTERA: MUSCIDAE)

BY FRED M. SNYDER

Stackelberg described the grasshopper parasite genus *Acridomyia* in 1920 from Astrachan Province in southeastern Russia. The discovery of this peculiar European genus in North America, which may be of economic importance, makes it desirable to describe the two new species before me at this time.

ACRIDOMYIA STACKELBERG

STACKELBERG, A. v., 1929, Report on Applied Entomology, IV, p. 126 (in Russian and German).

SEGUY, E., 1937, Genera Insectorum, CCV, p. 276.

This genus is readily distinguished from all other muscid (anthomyiid) genera by the absence of palpi and vibrissae. A few species and one genus of Scatophaginae lack vibrissae, but all genera known to me possess a well-developed pair of palpi.

The genotype, *A. sacharovi* Stackelberg, was reared from *Locusta migratoria* L., while *A. canadensis*, new species, was reared from *Melanoplus bivittatus* Say. At present there are no data available on the life history of *A. fumisquama*, new species.

TABLE OF SPECIES

1.—Third antennal segment black (Russia) ..... *sacharovi* Stackelberg.
Third antennal segment fulvous (North America) ..... 2.
2.—Wings milky white hyaline (Canada) ..... *canadensis*, new species.
Wings brownish hyaline (North Carolina) ..... *fumisquama*, new species.

Acridomyia canadensis, new species

Figure 1

MALE.—Length, 4 mm. Head black, the parafrontals, face and cheeks fulvous, grayish pruinescent. With eight or nine pairs of short, fine, pale, parafrontal bristles. Front at narrowest point one-eighth of head width. Juncture of parafacials and parafrontals as long as greatest width of third antennal segment; parafacials narrowed to three-fourths this width below. Cheeks as high as width of third antennal segment, with many fine, pale, hair-like bristles along ventral margin. Antennae fulvous, inserted opposite middle of eyes, descending to ventral third. Second and third antennal segments subequal in length.

Thorax black, yellowish gray pruinescent. Presutural thoracic bristles scarcely distinguishable from the clothing setulae. Notopleurals 2, without setulae at their bases. Prescutellar acrosticals 1; postsutural dorsocentrals 4, only the posterior two readily distinguishable; intra-alars 2. Hypopleura and pteropleura bare. Sternopleurals 0:0, but with a group of long, fine, pale hairs on the posterodorsal portion.

Legs fulvous yellow, the fore coxae brown, the basal half of fore femora and the median seven-eighths of other femora, apical three-fourths of mid and hind tibiae and apical tarsal segment of all legs blackish brown. Fore tibiae bare at the middle. Mid tibiae with two very short, scarcely distinguishable, median posterior bristles. Hind femora with a row of about ten widely spaced, fine, anteroventral bristles and a few much shorter posteroventral ones on basal half. Hind tibiae without distinguishable bristles.

Wings milky white hyaline with yellowish veins. All veins except costa bare. Anterior cross-vein situated almost in line with apex of first vein. Calyptrae pale fulvous; halteres orange.

Abdomen black, grayish pruinescent, with a distinct, rather broad dorsocentral vitta.

FEMALE.—Length 4.5 mm. Similar to the male but with dense golden yellow pruinescence. Front of almost uniform width throughout, one-third of head width. Proboscis yellowish. Legs except apical tarsal segments yellow. Bristles much shorter and finer. Abdomen without the distinct dorsocentral vitta.

TYPES.—Holotype, male (B205H38-311a4), July 6, 1939. Host *Melanoplus bivittatus* Say. Host collected from Arnuud, Manitoba, August 8, 1938; allotype, female, same data as holotype (Canadian National Collection). Paratypes: 1 male

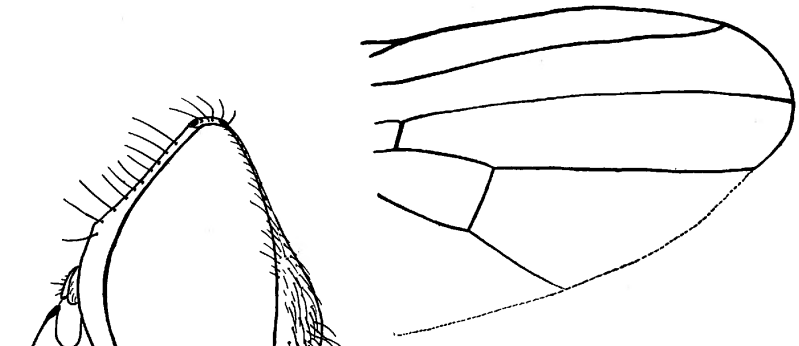

FIG. 1

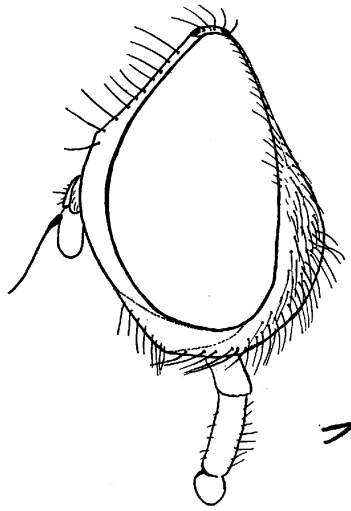

FIG. 2

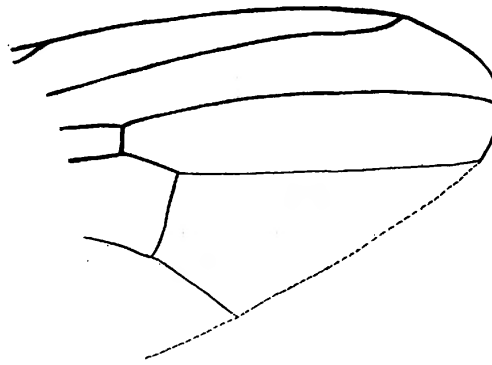

FIG. 3

Fig. 1. Apical portion of wing of *Acridomyia canadensis*, n. sp.
Fig. 2. Profile of head of male *A. fumisquama*, n. sp.
Fig. 3. Apical portion of wing of *A. fumisquama*, n. sp.

and 1 female, 783 and 784, June 26 and 27, 1939 (American Museum of Natural History), and female, Saskatoon, Saskatchewan August, 1924 (K. M. King).

Acridomyia sacharovi Stackelberg

STACKELBERG, A. V., 1929, *op. cit.*, p. 127.

I have not seen specimens of *sacharovi* Stackelberg, and although *canadensis* is quite similar I feel that the two species are distinct. They are separable in the male by *sacharovi* having the tibiae and tarsi entirely yellow, while both sexes have the third antennal segment blackened.

Stackelberg has presented a figure of the wing which, if accurate, differs from both species described herein by having the first wing vein entering the costa opposite the middle of the ultimate section of third vein, while in the other species it enters the costa opposite the anterior cross-vein (*canadensis*) or distinctly basad (*fumisquama*, n. sp.).

Acridomyia fumisquama, new species

Figures 2 and 3

MALE.—Length, 4 mm. Similar to *canadensis*, differing from it in having the legs dark brown to black, where they are fulvous yellow in *canadensis*, and the antero- and posteroventral bristles on the hind femora are more numerous, much longer and closely placed.

Wings smoky brown hyaline. The first vein enters costa distinctly basad of a point opposite the anterior cross-vein. Penultimate section of fourth vein proportionally shorter. Calyptrae and halteres dark brown.

TYPE.—Male, Raleigh, North Carolina, September 16, 1930 (C. S. Brimley), in The American Museum of Natural History.